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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,884	07/30/2003	Kazunori Taniguchi	P/3541-39	7938

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EXAMINER	
BACHMAN, LINDSEY MICHELE	

ART UNIT	PAPER NUMBER
3734	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/630,884	TANIGUCHI ET AL.	
	Examiner	Art Unit	
	LINDSEY BACHMAN	3734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-17 and 19-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-17 and 19-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *Foreign ref: JP 5-245153.*

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 March 2008 has been entered.

Response to Arguments

Applicant's arguments filed 17 March 2007 have been fully considered but they are not persuasive.

Applicant argues that end effectors 4, 5 of Hashiguchi do not rotate relative to base member 8. This is not persuasive because the opening and closing movement of the end effectors, as shown in Figure 4a, 4b, is rotation and this rotation is taking place with respect to the base member 8. Applicant also argues that the support 14 does not rotate relative to base member 8. This is not persuasive because the support 14 is at least capable of rotating relative to base member 8, as discussed in column 5, lines 19-29.

Applicant argues that the base member 8 is not located at the distal end of the elongate member 7. This is not persuasive since the base member 8 runs through sheath 7 it is located at both the proximal and distal ends of the elongate member and therefore reads on the claims.

Applicant argues that the extended portion 11 is not a part of the elongate member 7. This is not persuasive because Applicant's claim language is not claiming that the extended portion is a part of the elongate member. Applicant also argues that Hashiguchi does not extended portion 11 does not prevent forward and backward rotation of the base member with respect to support 14. This is not persuasive because the base member 8 and support 14 do not move backward and forward relative to one another (see Figure 4a, 4b). Applicant further argues that Hashiguchi does not teach that the support member covers at least once side of the base member 8. This is not persuasive because base member 8 is surrounded by the extended portion 11 (see Figure 4a, 4b)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 9, 10, 19, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashiguchi (US Patent 6,063,103).

Claim 1: Hashiguchi'103 discloses a device that contains an end effecter (4, 5), a support (14) having a proximal end which supports the end effecter (see Figures 4a, 4b), a base member (8) having a distal (8a) and proximal end. The base member pivotally supports the proximal end of the support (see Figure 4b) to enable the end effecter and the support to be rotated together with respect the base member. The device also contains an elongate member (sheath) with a distal end at which the base member is located (see Figure 4b) and an extended portion (11) disposed in the distal end of the elongate member to prevent forward and backwards motion of the base member with respect to the support (see Figure 4a, 4b) and cover at least one side of the base member (see Figures 3a-3c).

Claim 2: The extended portion (11) is in the distal end of the elongate member (29).

Claims 3 and 4: The extended portion (11) is integral with the distal end of the elongate member (29) (see Figures 7a, 7b, 8).

Claim 5: The extended portion (11) has an annular distal surface (11a) that is inclined (perpendicular to) relative to the longitudinal axis of the sheath (see Figure 1-4).

Claim 7: The sheath and the extended portion are rigid (see Figure 1).

Claim 9: The sheath is a circular tube shape (Figure 4a, 4b) and the proximal end of the extended portion is formed as a notch in the circular tube shape with the bottom portion of the notch extending along a plane that includes the central axis of the sheath (see portion of element 11, between 11 and 11a in Figure 4a or 4b).

Claim 10: The sheath is a circular tube shape (Figure 4a, 4b) and the extended portion orthogonal to the sheath (11a) has a circular arc shape (see Figure 4a).

Claim 19: Hashiguchi'103 discloses an end effecter operation section (9a) and a rotation operation section (9b).

Claim 23: Hashiguchi'103 discloses that the support is a pivot and the end effector is supported by the pivot (see Figure 4a, 4b).

Claim 24: The end effectors are jaws (see Figure 4a, 4b) which are supported by the pivot and are relatively rotated by using the pivot as a rotary axis (see Figures 4a, 4b).

Claim 25: Hashiguchi'103 discloses an end effecter operation section (9a) and a rotation operation section (9b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashiguchi'103, as applied to Claims 4 and 7, in further view of Miyawaki, et al. (US Patent 6,066,151).

Claim 8 and 11: Miyawaki'151 teaches that the elongate member and the end effecter have conductive areas to apply high frequency power to the end effecter (column 5, lines 16-19, column 6, lines 33-56, and column 8, lines 45-51). Further, the sheath has an inner tube and an insulating outer tube (column 5, lines 16-19). It would have been obvious to one skilled in the art to modify the device taught by Hashiguchi'103 by applying high frequency power as taught by Miyawaki'151 in order to aid in cutting body tissue. Further, it would be obvious to use an insulated sheath to protect the body areas not being treated from the power.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashiguchi'103 in view of Lee'844, as applied to Claim 12, in further view of Miyawaki, et al. (US Patent 6,066,151).

Hashiguchi'103 teaches an insulating sheath (column 4, lines 54-55). Hashiguchi'103 does not teach a conductive first driving member (608, 609).

Miyawaki'151 teaches that the elongate member and the end effecter have conductive areas to apply high frequency power to the end effecter (column 5, lines 16-19, column 6, lines 33-56, and column 8, lines 45-51). It would be obvious to make the member that moves the end effecter (first driving member) conductive as well because the power needs to be transmitted from the proximal end of the device to the distal treating end of the device. Further, the sheath an insulating outer tube (column 5, lines 16-19). It would have been obvious to one skilled in the art to modify the device taught by Lee'844 by applying high frequency power as taught by Miyawaki'151 in order to aid in cutting body tissue. Further, it would be obvious to use an insulated sheath to protect the body areas not being treated from the power.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashiguchi'103, as applied to Claim 4, in view of Miyawaki'151.

Claim 17: Hashiguchi'103 in view of Lee'844 does not teach an attaching/detaching mechanism.

Miyawaki'151 teaches an attaching/detaching mechanism (32, 33) in order to remove the sheath (column 4, line 62 to column 5, line 6). It would have been obvious to one skilled in the art at the time the invention was made to modify the device taught by

Hashiguchi'103 in view of Lee'844 by adding a attaching/detaching mechanism to the sheath in order to remove it after use for cleaning/replacement.

Claims 12, 13, 14, 20-22 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashiguchi'103, as applied to Claim 4 and 19, in further view of Lee'844.

Claim 12: Hashiguchi'103 teaches the limitations of Claim 12, except for an operation section that rotates the end effecter and first and second driving members.

Lee'844 discloses a device that contains an end effecter (602, 603); a support (601) in which the proximal end (towards 626) supports the end effecter; a base member (600) which pivotally supports (around axis 604/pin 620) the proximal end of the support on its distal end (towards 620) so that the support can rotate along with the end effecter (see Figure 3a). The device also contains an extended portion (300, 302, 303) that has a proximal end and a distal end; the base member is attached to the distal end of the extended portion. Further, the extended portion prevents forward and backward rotation of the base member with respect to the support and the extended portion covers at least one side (the proximal portion) of the base member.

Further, Lee'844 teaches an operation section (300, 302, 303) that rotates the end effecter and the support (column 8, lines 32-42) (The operation section contains wheels 330, 332, 334 that are connected to cables 606-609. The cables rotated the end effecter and the support.). The insertion section has first (608, 609) and second (606, 607) driving members that are arranged side by side (in portion 302, 303). The first driving members operate the end effector (column 6, lines 33-53) and the second

driving members operate the support (column 6, lines 22-33). It would have been obvious to one skilled in the art at time the invention was made to modify the device taught by Hashiguchi'103 with an operation section in order to increase movement of the device and increase the range of motion of the end effecter.

Claim 13: Hashiguchi'103 teaches that teaches that the end effectors are a pair of jaws and the jaws are supported by the support. Hashiguchi'103 does not teach that the support is connected to the distal end of a driving member.

The end effectors taught by Lee'844 are a pair of jaws that can be opened and closed (Figure 3a). The jaws are supported by the support (at 624) (Figure 3b). The support is connected to the distal end of the second driving member to rotate the support in one plane (see Figure 3a, 3b, and arrow J5). It would have been obvious to one skilled in the art at the time the invention was made to modify the device taught by Hashiguchi'103 with the modifications taught by Lee'844 in order to increase the movement of the device and increase the range of motion of the end effecter.

Claim 14: Hashiguchi'103 does not teach a sliding member or a connection member.

Lee'844 teaches a sliding member (610, 611) that is supported by one jaw (Figure 3b) and slid to open/close the jaws (column 6, lines 33-54). There is connection member (round base, as shown in Figure 3b that supports the cables 610, 611. Round base cannot be seen in Figure 3b for cables 610, 611, see equivalent around 608, 609.). The connection member is connected to the sliding member (see Figure 3b) and

the distal end of the first driving member (608, 609) (when the device is assembled (see Figure 3a). It would have been obvious to one skilled in the art at the time the invention was made to modify the device taught by Hashiguchi'103 with the sliding member taught by Lee'844 because it helps open and close the jaws.

Claim 20 and 21 and 26 and 27: Hashiguchi'103 teaches the limitations of Claim 20, 21 and 26 except for a first and second transmitting member.

Lee'844 discloses a first transmitting member (608-611) that has distal and proximal ends. The proximal end is dynamically connected to the end effecter operation section (332, 334) (column 8, lines 32-42 and Figure 4) and the distal end is dynamically connected to the end effecter (see Figure 3b). There is also a second transmitting member (606, 607) in which the proximal end is connected to the rotation operation section (330) (column 8, lines 32-42 and Figure 4) and the distal end is connected to the support (601) (column 8, lines 27-33). Lee'844 teaches the first transmitting member has a first part (proximal end) disposed in the elongate member (column 8, lines 32-43) and a second part (distal end) disposed in the support (601) (near element 630 in Figure 3b). It would have been obvious to one skilled in the art at the time the invention was made to modify the device taught by Hashiguchi'103 with a first and second transmitting member, as taught by Lee'844 in order to maximize control of the distal end section.

Claim 22 and 28: Hashiguchi'103 teaches that the elongate member is a sheath. Further, it is inherent that if the device taught by Lee'844 were modified with a sheath over sections 302, 303, the first and second transmitting members would pass though it.

It would have been obvious to one skilled in the art at the time the invention was made to modify extended portion taught by Lee'844 by covering it with a sheath as taught by Hashiguchi'103 in order to aid in inserting the endoscopic portion of the device into the body, as is well known in the art.

Claims 1-5, 7, 9, 10, 12, 13, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassler (US Patent 5,374,277) in view of JP 5-245153.

Claim 1: Hassler'277 teaches a device that contains an end effecter (60, 70), a support (40) that supports the end effecter, a base member (130), and an elongate member (10) that is proximal to the base member. Hassler'277 does not teach an extended portion.

JP'153 teaches that the elongate member (2) has an extended portion (2d). This in order to control the rotation of the end effecter section. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hassler'277 as taught by JP'153 in order to aid in controlling the movement of the end effecter section. Further, the different configuration would have been easily conceived by one ordinary skill in the art based on old and well-known technology.

Claim 2, 3, 4, 5, 7, 9: The extended portion of JP'153 disposed on the distal end of the elongate member and it serves to regulate rotation of the support (see Figure 5). Further both Hassler'277 and JP'153 show rigid elongate members.

Claim 10: The sheath/elongate member of both Hassler'277 and JP'153 has a circular tube shape (Figure 2 of Hassler; Figure 3 of JP'153). The extended portion of the JP'153 has a circular arc (see Figure 6).

Claim 12: Hassler'277 teaches an operation section (290) that rotates the end effecter and support with respect to the base member (column 9, lines 1-28). The elongate member of Hassler'277 also has first driving member for operating the end effecter (30, 32, 50, 101) (column 4, lines 44-57) and a second driving member driven to rotate the support (column 9, lines 1-28).

Claim 13: The end effecter of Hassler'277 is a pair of jaws. The support (40) is connected to the distal end of the second driving member (column 9, lines 1-28) to rotate the support.

Claim 14: Hassler'277 teaches a sliding member (120) and a connection member (110).

Claim 17: Hassler'277 teaches an attaching/detaching mechanism (14).

Claim 8, 11, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassler'277 in view of JP'153, as applied to Claims 4, 7 and 12, in further view of Miyawaki, et al. (US Patent 6,066,151).

Hassler'277 in view of JP'153 teach the limitations of Claim 8 except for the use of high frequency power with the end effector.

Miyawaki'151 teaches that the elongate member and the end effecter have conductive areas to apply high frequency power to the end effecter (column 5, lines 16-19, column 6, lines 33-56, and column 8, lines 45-51). Further, the sheath of Miyawaki'151 has an inner tube and an insulating outer tube (column 5, lines 16-19). It would have been obvious to one skilled in the art to modify the device taught by Hassler'277 in view of JP'153 by applying high frequency power as taught by

Miyawaki'151 in order to aid in cutting body tissue. Further, it would be obvious to use an insulated sheath to protect the body areas not being treated from the power.

Claims 19-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassler'277 in view of JP'153.

Claim 19, 25: Hassler'277 teaches an end effector operation section (30) (column 6, line 48 to column 7, line 21) and a rotation operation section (290) (column 9, lines 1-28). The rotation operation section of Hassler'277 is not located inside the elongate member, however, it would be obvious to rearrange the parts of Hassler'277 in order to accommodate this because it is an obvious design choice.

Claim 20, 22, 26, 28: Hassler'277 teaches a first transmitting member (30, 32, 50, 101) (column 4, lines 44-57) and a second transmitting member (column 9, lines 1-28).

Claim 21, 27: Hassler'277 teaches the first transmitting member has a first part (proximal end of 30) and a second part (101) in the support.

Claim 23: The support of Hassler'277 has a pivot and the end effecter is supported by the pivot.

Claim 24: The end effecter of Hassler'277 is a pair of jaws supported by the pivot (see Figure 4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINDSEY BACHMAN whose telephone number is

(571)272-6208. The examiner can normally be reached on Monday to Thursday 7:30 am to 5 pm, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on 571-272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin T. Truong/
Primary Examiner, Art Unit 3734

/L. B./
Examiner, Art Unit 3734